

Harwood has a female which he bred from a larva of *Platyptilia bertrami*, the cocoon which accompanies it is thin, rather papyraceous; glossy and more elongate than is usual in *Apanteles*, but possibly the elongation may be accidental.

(To be continued.)

NEW SPECIES OF NOCTUIDÆ AND GEOMETRIDÆ FROM FORMOSA.

BY A. E. WILEMAN AND RICHARD SOUTH.

NOCTUIDÆ.

Anachrostis indistincta, sp. n.

♂. Fore wings pale brown with darker markings, and some rather long brownish hairs on dorsum towards base; costa marked with dark brown, becoming blackish near apex; transverse lines indistinct, discoidal dot black; terminal area freckled with darker brown, interrupted terminal line black; fringes pale. Hind wings pale fuscous with dusky discoidal dot and terminal line. Underside pale brown with a slight reddish tinge, a black discoidal dot on all wings.

Expanse, 17 millim.

Type, male, in the British Museum. Kanshirei (1000 ft.), Formosa (Wileman), May 2nd, 1907.

Anepa irrorata, sp. n.

♀. Fore wings pale brown with slight rufous tinge, finely irrorated with black; antemedial line blackish curved and fairly distinct; postmedial line black, almost straight, inner edge rather diffuse, outer edge bordered with clear pale brown; a white dot in the cell and a black point at outer end of the cell; subterminal line indicated by black dots, only distinct at costa and dorsum; terminal dots black, fringes greyish brown. Hind wings fuscous with a dusky discoidal mark and oblique line beyond; fringes paler.

Expanse, 30 millim.

Type in the British Museum. Sikkim (Dudgeon).

This specimen was referred by Colonel Swinhoe to *A. dodai*, A.M.N.H. (7), xv, p. 503 (1905). With it there is also a female from Formosa collected by Hobson at Tamsui; this is somewhat larger, the antemedial line is not clearly defined and the white dot is less distinct.

GEOMETRIDÆ.

Boarmia subochrearia, sp. n.

♂. Fore wings whitish ochreous, shaded with brown on costal area, freckled with brown on medial third, and clouded with darker brown and black on basal and terminal thirds; antemedial and post-

medial lines dark brownish, indistinct; discoidal lunule black set in a dusky cloud; terminal line black, black dashes between veins 4 and 6; fringes grey, ochreous at base and tips. Hind wings similar to fore wings, but the basal area is not clouded and the discoidal mark is punctiform. Underside more ochreous and without dark clouding at base of all the wings, clouding on terminal area blacker.

Expanse, 36 millim.

Collection number 1898.

A male specimen from Arizan (7300 ft., April, 1908).

Allied to *B. sublimis*, Butl.

Ectropis nigrosparsa, sp. n.

♂. Antennæ finely ciliated. Head and thorax pale brown, mixed with darker; abdomen pale brown, shaded with darker and dotted with black on back of basal segments. Fore wings pale brown, inclining to ochreous, finely speckled with darker brown on outer half and more densely on basal half; sub-basal line represented by black marks on costa and on median nervure; antemedial line black, bluntly angled below costa, intersected by black linear marks on the veins, originating in a black quadrate mark on costa; medial line black, forming outwardly oblique band from costa to lower angle of cell, thence sinuous to dorsum; postmedial line sinuous, represented by black dots increasing in size towards costa; subterminal line pale, with a white dot about middle, preceded by a blackish cloud towards costa and bordered by clusters of black scales below; terminal line black, lunulate; fringes pale, darker marked at tips. Hind wings pale brown, inclining to ochreous, freckled with darker, traces of blackish discoidal spot and a sinuous line beyond; terminal line as on fore wings. Underside whity-brown, markings of upper side indicated, apical area of fore wings clouded with blackish.

Expanse, 40 millim.

Type in the British Museum. Rantaizan, Formosa (7500 ft.), May 15th, 1909 (Wileman).

Arichanna olivescens, sp. n.

♂. Fore wings whitish, irrorated with black, and powdered with olivaceous chiefly near the transverse lines, three black spots on the costa; basal line black, not extending below the median nervure; antemedial line represented by first costal spot and an upright chevron-like black mark on dorsum; postmedial line black, wavy, commencing in third costal spot, excurred round cell; below vein 2 it is broad, incurved, and unites with a short, upright bar on dorsum; subterminal line indicated by black-paired dots below costa, before middle, above dorsum, and a sagittate mark above vein 2; terminal dots black. Hind wings whitish, finely freckled with pale olive-brown, discoidal mark blackish; postmedial and subterminal lines black-brown, only distinct towards dorsum; terminal dots black. Underside whitish, freckled with pale olive-brown, markings of upper side indicated.

Expanse, 45 millim.

Collection number, 806D.

Two male specimens from Arizan (7300 ft.), August 8th, 1908.

Allied to *A. marginata*, Warr.

Lygris taiwana, sp. n.

♂. Head white, mixed with grey; thorax white, mixed with grey, and marked with black; abdomen greyish, segmental divisions whitish. Fore wings blackish-brown, inclining to fulvous brown on median area, traversed by sub-basal, antemedial, and postmedial white bands; these bands enclose brownish lines and are sinuous, the postmedial is projected between veins 3 and 5 almost to termen, and some of the enclosed lines are yellowish; discoidal spot black, oval, white-edged; subterminal line white, highly flexuous; terminal line white; fringes yellowish, black at base, marked with black at ends of veins. Hind wings and underside with colour and markings somewhat similar to those of fore wings, but the basal area is not so dark and is without white band.

Expanse, 27 millim.

Collection number, 820.

A male specimen from Arizan (7300 ft.), September 25th, 1906.

Comes near *L. erectaria*, Leech.

Sterrrha parallela, sp. n.

♂. Fore wings pale buff with two parallel dusky lines; discoidal dot black, pale on second line; postmedial line purplish-brown, indented before dorsum; area beyond postmedial purplish-brown, enclosing a spot of the ground colour towards apex; fringes pale buff mixed with purplish-brown. Hind wings similar to the fore wings. Underside as above but area beyond postmedial not purplish.

♀. Agrees with the male.

Expanse, 20 millim ♂; 23 millim ♀.

Collection number, 1646.

A male specimen from Arizan (7300 ft.), August 21st, 1908, and a female from Rantaizan (7500 ft.), May 4th, 1909.

Somewhat like *S. jakima*, Butl., but the male antennæ are finely ciliated.

Hypenorhynchus inobtrusa, sp. n.

♂. Fore wings grey sprinkled with olive-brown scales; antemedial line blackish, double, almost straight, only distinct on costa; postmedial line blackish, double, most distinct towards costa and about middle; interstices of postmedial and antemedial faintly ochreous towards costa; fringes checkered with black, preceded by a blackish geminate mark toward apex. Hind wings and underside fuscous.

Expanse, 17 millim.

Collection number, 1657.

A male, in poor condition, from Arizan (7300 ft.), August 6th, 1908.

Hypenorhynchus costimacula, sp. n.

♂. Fore wings greyish brown, silky, costa ochreous-brown marked with black; antemedial and postmedial lines brown, the first slightly sinuous, the second biangulate, black marks on costa before middle and on dorsum; black atoms on termen, fringes rather paler at tips. Hind wings greyish-brown.

Expanse, 14 millim.

Collection number, 903.

Two male specimens from Kanshrei (1000 ft.), August 18th, 1906. Three specimens from Formosa (Wileman) in the British Museum.

Eupithecia karapinensis, sp. n.

♀. Fore wings greyish-brown on basal and terminal thirds, the former tawny at base; medial third whitish; several irregular transverse black lines on the basal half of the wings; postmedial line black, finely waved, indented below costa, followed by a faint tawny band; discoidal spot black, distinct; subterminal line whitish, interrupted, terminating in a white spot above tornus; fringes grey, preceded by a black line. Hind wings whitish, traversed by several wavy brownish lines. Underside whitish, rather glossy, some of the lines beyond the black discoidal spot of upper side faintly reproduced on the fore wings; hind wings marked as above.

Expanse, 28 millim.

Collection number, 829.

A female specimen from Karapin (3000 ft.), January 8th, 1908.

Comes near *E. rufescens*, Butl.

Eupithecia taiwana, sp. n.

♂. Head whitish; thorax and abdomen brownish-grey mixed with darker brown. Fore wings whitish, powdered with minute black atoms, marked with brownish except on central area; sub-basal line blackish, not conspicuous; antemedial and postmedial lines black, the latter most distinct and sharply angled at end of cell; discoidal spot and terminal line black, fringes whitish, marked with brownish. Hind wings whitish, freckled with brown on dorsal area, veins on this area marked with black; terminal line black, fringes whitish. Underside much as above, but brown marks paler.

Expanse, 27 millim.

Collection numbers, 830, 1653D.

Two male specimens. The type from Arizan (7300 ft.), September 15th, 1906, and the co-type from Rantaizan (7500 ft.), May 4th, 1909.

Nearest to *G. insigniata*, Hübn.

Ptychopoda taiwana, sp. n.

♀. Pale whitish-brown, powdered with darker brown; antemedial line and medial shade indistinct; postmedial line blackish-

brown; area beyond postmedial dusky, traversed by a pale, rather sinuous band, most distinct towards the costa. Hind wings similar to the fore wings. All wings have a black discoidal dot and a pale terminal line; fringes whitish with black dots at their base. Underside as above, but silky.

Expanse, 22 millim.

Collection number, 894.

A female specimen from Arizan (7300 ft.), September 16th, 1906. There is a specimen from Formosa (Wileman) in the British Museum.

Allied to *P. decidua*, Warren.

Ptychopoda sinuata, sp. n.

♀ Fore wings greenish-grey; post-medial line whitish, dilated on costa, almost straight; subterminal line whitish, sinuous. Hind wings greenish-grey; medial line whitish, appearing to be a continuation of the postmedial of the fore wings; subterminal line whitish, sinuous.

Expanse, 24 millim.

Collection number, 902B.

A female specimen, in poor condition, from Rantaizan (7500 ft.), May, 1909.

Ptychopoda tainanensis, sp. n.

♂ Fore wings pale whitish-brown, with three irregular transverse brown lines, the outer one only distinct; discoidal dot black; terminal line brown, interrupted, preceded by small brownish clouds. Hind wings similar in colour and marking. Underside brown, powdered and suffused with darker brown. The antennæ are bipectinate.

Expanse, 13 millim.

Collection number, 900A.

A male specimen from Tainan (sea-level), June, 1906.

Comes nearest to *P. comparanda*, Warren, from Ceylon.

Ptychopoda deleta, sp. n.

♂. Antennæ with long ciliæ. Fore wings whitish-brown, powdered with rather darker brown; the only perceptible transverse line is the subterminal, this is paler and sinuous; some pale clouds on termen. Hind wings whitish-brown, powdered with darker, no discoidal mark or transverse line. Underside whitish with faint traces of three transverse lines on the fore wings.

Expanse, 18 millim.

Collection number, 1628A.

A male specimen from Kanshirei (1000 ft.), May 6th, 1907.

Near *P. insuavis*, Butl.